Calendar Planner for UbD 4th Grade Unit (4 weeks)

Operations & Algebraic Thinking: Understanding patterns, functions and coordinate plane

Week 3 - Coordinate Plane	Vocabulary: coordinate plane, ordered pairs, origin, translation, reflection, x & y axis Objectives: Read and plot points in the first quadrant of the coordinate plane. Determine the side lengths of two-dimensional figures.				
Action	Monday	Tuesday	Wednesday	Thursday	Friday
Essential & Topical Question	Lets do aWord splash to review functions. Three lines, each person write one thing, then sit down. What do you see?	Do you fly a coordinate plane?	Ordered pairs? Are they a row of shoes in order? Explain how ordered pairs are used to identify the location of points on plane.	How might we use ordered pairs to write in code to each other?	What does 2 dimensional mean?
Learning Plan	Review functions with one operation, two operations. Finding input and output when we know the rule. Using white boards and a worksheet	Read "A Fly on the Wall" by Julie Glass. Book explaining how Descartes came up with the Cartesian Coordinate Plane. Work in groups. Create 3-D *x (right)* and *y (up)* axis on classroom floor. Label. Mark off increments of 5 on each axis. Move right, then up!	Show state map. Use ordered pairs to identify the locations of points on the map. Then transfer that knowledge to Quadrant 1 of a coordinate plane on the overhead. Have students practice.	Students will practice on Alphabet Coordinates, teacher will check before they create their own. Students will create their own plane and puzzle. Short message!	Students will practice on Horizontal and Vertical Distance Worksheet. Students will create their own rectangle and give ordered pairs.
Assessment	Think, pair, share. Students will work on white board, pair with a partner, share with the class. Visual assessment, checking off as many students on each action.	Students will work in groups of 4. They will each explain their coordinate plane to the class. They will be assessed on group work, axis labeling and explanation to group. http://www.proteacher.net/discussions/showthread Check for understanding.	Students will be given an opportunity to work with a map if they did not have one. Everyone will be given 3 places in Wisconsin and write down the place, the coordinates (ordered pairs) and the Hwy that runs through the town.	Students will turn in Alphabet Coordinates and also create their own private message example and turn that in as well.	Students will turn in Horizontal and Vertical Distance worksheet. Also verbally explain how using subtraction you can find the length of lines on the x and y axis.
Comments, Extensions & Reflections	Think about ordered pairs.	What is something that we might use a grid like this for? Bring your favorite map to school tomorrow.		Students will take home empty coordinate plane and plot their walk to school. Write in ordered pairs.	